

Notice of Allowability

Application No.

10/032,025

Examiner

Chirag G. Shah

Applicant(s)

BROWN ET AL.

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/9/05.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Chirag G. Shah
Patent Examiner 2664

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joseph Ryan on 3/8/06.

The application has been amended as follows:

Claim 1 has been deleted in its entirety and replaced by the following:

1. A processor comprising:
classification circuitry operative to identify for each of a plurality of packets received in the processor a corresponding packet flow identifier;
control circuitry operatively coupled to the classification circuitry; and
at least one operational unit operatively coupled to the control circuitry;
wherein the control circuitry is operative to direct one or more packets having a given packet flow identifier to the at least one operational unit and maintains a desired function call sequencing over the one or more packets having the given packet flow identifier for one or more order-dependent processing tasks in the processor;
the control circuitry comprising ordering logic, the ordering logic comprising:

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at least one ordering queue storing context identifiers in conjunction with respective function call identifiers and utilizing said context identifiers and said respective function call identifiers to maintain the desired function call sequencing for a designated set of functions;

and at least one configuration register storing information specifying said set of functions that are ordered by the at least one ordering queue.

Claim 18 has been deleted in its entirety and replaced by the following:

18. A method for use in processing packets in a processor, the method comprising the steps of:

identifying, in classification circuitry, for each of a plurality of packets received in the processor a corresponding packet flow identifier; and

directing, in control circuitry, one or more packets having a given packet flow identifier to at least one operational unit of the processor and maintains a desired function call sequencing over the one or more packets having the given packet flow identifier for one or more order-dependent processing tasks in the processor;

wherein at least one ordering queue, in the control circuitry stores context identifiers in conjunction with respective function call identifiers and utilizing said context identifiers and said respective function call identifiers to maintain the desired function call sequencing for a desired set of functions; and

at least one configuration register, in the control circuitry stores information specifying said set of functions that are ordered by the at least one ordering queue.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance:

Regarding claims 1 and 18, Prior Art fails to disclose control circuitry comprising at least one ordering queue storing context identifiers in conjunction with respective function call identifiers and utilizing said context identifiers and said respective function call identifiers to maintain the desired function call sequencing for a designated set of functions and at least one configuration register storing information specifying said set of functions that are ordered by the at least one ordering queue. Prior Art additionally fails to explicitly identify three different identifiers associated in the ordering logic as disclosed a packet flow identifier, context identifiers and function call identifiers in combination with other limitations set forth in the respective claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G. Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7682. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs
March 8, 2006

A handwritten signature in black ink, appearing to read 'Chirag Shah', is written over the printed name.

Chirag Shah
Patent Examiner, Division 2616